

Title (en)  
Radio repeater with spillover measurement.

Title (de)  
Funkverstärkerstation mit Überlaufmessung.

Title (fr)  
Répéteur hertzien avec mesure du débordement.

Publication  
**EP 0227393 A2 19870701 (EN)**

Application  
**EP 86309705 A 19861212**

Priority  

- JP 11108886 A 19860515
- JP 22349686 A 19860924
- JP 28121985 A 19851216

Abstract (en)  
A radio repeater includes a circuit for monitoring the spillover signal (6) from a transmitting antenna (3) to a receiving antenna (1). The repeater includes a frequency converter (12,10) which slightly offsets the transmitted frequency ( $f_1 + \Delta f$ ) from the received service signal frequency ( $f_1$ ); and a signal detector (14) which measures the offset frequency component  $\Delta f$  in the received signal. The offset frequency is preferably around 100Hz, so that it is higher than the fading frequency of the received signal, but is low enough not to affect the operation of remote receivers receiving the transmitted signal. The measured spillover level is used to control the gain of the repeater and/or to cancel the spillover signal, so that the repeater can have the maximum gain which can be achieved without suffering from oscillation.

IPC 1-7  
**H04B 7/155**

IPC 8 full level  
**H04B 7/155** (2006.01)

CPC (source: EP US)  
**H04B 1/525** (2013.01 - EP US); **H04B 7/15535** (2013.01 - EP US); **H04B 7/15578** (2013.01 - EP US)

Citation (applicant)  

- JP S4929921 A 19740316
- JP S5466025 A 19790528 - MATSUSHITA ELECTRIC IND CO LTD
- US 4475243 A 19841002 - BATLIVALA PERCY P [US], et al
- JP S5466025 A 19790528 - MATSUSHITA ELECTRIC IND CO LTD

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**EP 86309705 A 19861212**; DE 3650241 T 19861212; US 94013486 A 19861210